Fill in the Blank Notes

**Classification-**

**Binomial Nomenclature**

two part name

(Genus, \_\_\_\_\_\_\_\_\_\_\_)

Hierarchical Classification

7 \_\_\_\_\_\_\_\_\_\_\_\_\_\_categories

Systematics

study of the \_\_\_\_\_\_\_\_\_\_\_ of biological diversity

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_is the grouping of objects or organisms based on a set of criteria.

**Why do we classify?**

Biologists group organisms to represent \_\_\_\_\_\_\_\_\_\_\_\_ and

proposed relationships

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_systems change with expanding knowledge about new and well-known organisms

Biologists use a system of classification to organize information about the \_\_\_\_\_\_\_\_\_\_\_\_of living things

Introduction to Biological Classification

**Binomial Nomenclature**

Rules for writing scientific names:

Genus-first letter \_\_\_\_\_\_\_\_\_\_\_

Species-all letters are lowercase

**Taxonomic Categories**

**Species and genus**

A named group of organisms is called a \_\_\_\_\_\_\_\_\_

A genus is a group of species that are \_\_\_\_\_\_\_\_\_related and share a common ancestor.

**Family**

A \_\_\_\_\_\_\_\_\_\_ is the next higher taxon, consisting of similar related genera



**Higher taxa**

An \_\_\_\_\_\_\_\_contains related families

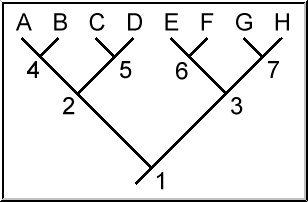
A \_\_\_\_\_\_\_\_\_contains related orders

A \_\_\_\_\_\_\_\_or division contains related classes

A \_\_\_\_\_\_\_\_\_\_\_\_\_contains related phyla

The \_\_\_\_\_\_\_\_\_\_\_\_\_\_is the broadest of all and contains one or more \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Cladogram 1. Groups G and H are most closely related, while group A is the most distant. Clades are represented by numbers 1 through 7.

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**Kingdom Animalia**

Heterotrophic

\_\_\_\_\_\_\_\_\_\_\_\_\_

Eukaryotes (have a \_\_\_\_\_\_\_\_\_)

No cell wall but do have a cell \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Reproduce sexually

Some \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ some invertebrates

ex. birds, insects, humans, sponges and worms

**Domain Eukarya**

All \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ have a membrane-bound \_\_\_\_\_\_\_\_\_\_\_ and other membrane bound \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Eukarya contains Kingdoms \_\_\_\_\_\_\_\_\_\_\_, Fungi, Plantae, and \_\_\_\_\_\_\_\_\_\_\_\_\_

**Grouping Species**

Three domains: Bacteria, Archaea, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Six Kingdoms: Bacteria, Archaea \_\_\_\_\_\_\_\_\_\_\_\_\_ Fungi, Plantae, and \_\_\_\_\_\_\_\_\_\_\_\_

Organisms are classified into \_\_\_\_\_\_\_\_\_\_\_\_based on cell \_\_\_\_\_\_\_\_\_\_\_and structure

Organisms are classified into \_\_\_\_\_\_\_\_\_\_\_\_\_based on cell type, structure and \_\_\_\_\_\_\_\_\_\_\_\_\_\_

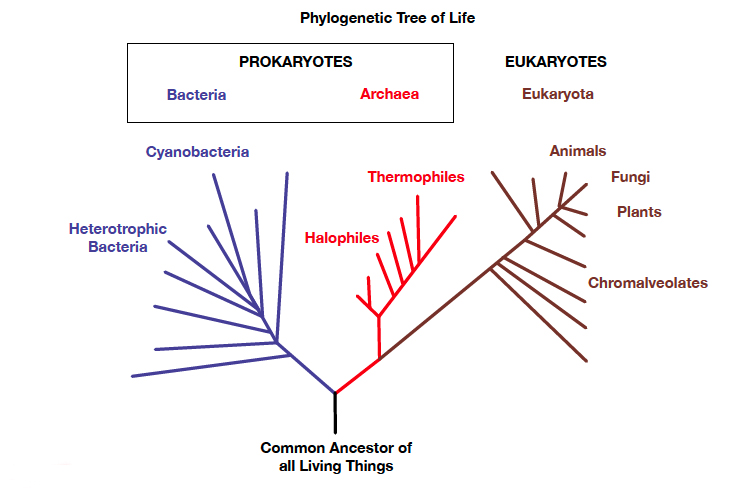
**Dichotomous Keys Identify Organism**

Dichotomous keys contain pairs of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_descriptions

After each description the key directs the user to another \_\_\_\_\_\_\_ of descriptions **OR identifies** the organism



Systematics is the study of the evolution of biological \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Kingdom Protista**

**Any Eukaryote NOT in animal, plant or fungi Kingdoms**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ although some are multicellular

Movement using cilia \_\_\_\_\_\_\_\_\_\_, or pseudopods

Can use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, parasitism or decomposition to get food

ex. amoebas, paramecium, slime molds , seaweed

**Kingdom Fungi**

Heterotrophs

Usually \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Have cell walls containing \_\_\_\_\_\_\_\_\_\_\_

Decomposers

Threadlike structures called \_\_\_\_\_\_\_\_\_\_\_for feeding, growth and reproduction

\_\_\_\_\_\_\_\_\_\_\_\_nutrients from organic materials in its environment

ex. yeast, mold and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Kingdom Plantae**

Multicellular

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Have cell \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(provides \_\_\_\_\_\_\_\_\_\_\_)

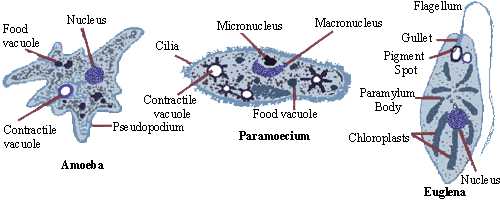
Use chlorophyll to make food via \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

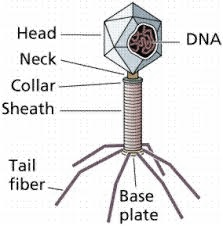
Uses seeds and \_\_\_\_\_\_\_\_\_\_ to reproduce

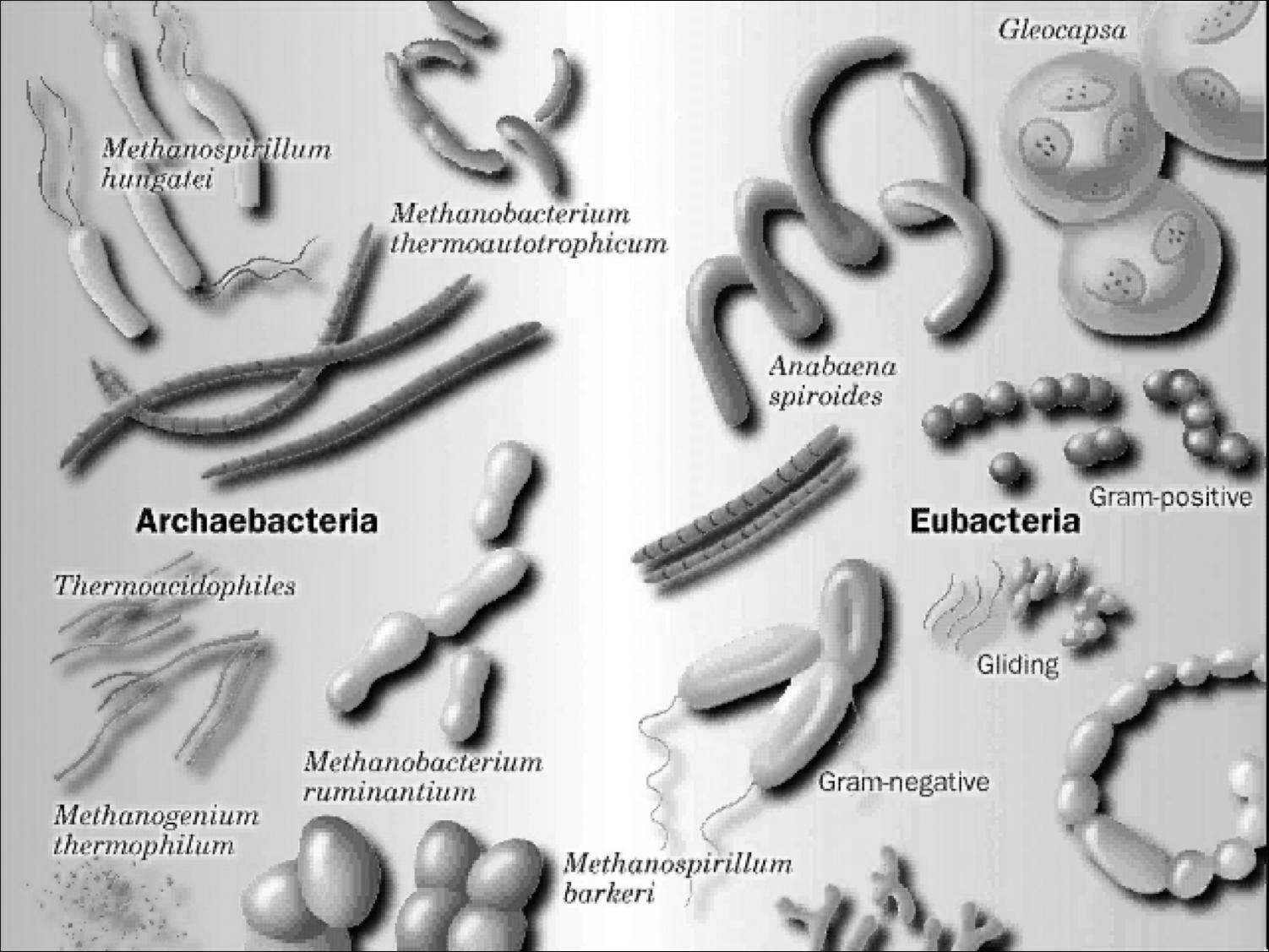
Autotrophs, primary producers

Grouped by \_\_\_\_\_\_\_\_\_\_ tissue type

ex. moss, grass, flowers \_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Viruses an EXCEPTION**

A virus is a \_\_\_\_\_\_\_\_\_\_\_ acid surrounded by a protein coat

Viruses do NOT possess cells, nor are they cells and are not considered to be \_\_\_\_\_\_\_\_\_\_\_\_

Because they are \_\_\_\_\_\_\_\_\_\_\_\_

they are usually not placed in the biological classification system.

**Viruses must have a host to reproduce.**

**Domain Archaea**

Most are heterotrophs; some are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that can survive extreme conditions

(ex. high temp, salinity)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Lack peptidoglycan in cell walls

Diverse in \_\_\_\_\_\_\_\_ and nutrition requirements

Some are autotrophic

Have been found in boiling hot springs, salty lakes and in thermal \_\_\_\_\_\_\_\_\_\_\_at the bottom of the ocean.

**Domain Bacteria**

Bacteria are members of \_\_\_\_\_\_\_\_\_\_\_\_\_ Domain and Kingdom \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Prokaryotes

Cell walls contain peptidoglycan

\_\_\_\_\_\_\_\_\_\_\_\_\_group that can survive many \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Most bacteria are \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Most abundant organism on the planet

\_\_\_\_\_\_\_\_\_\_\_\_reproduction(binary fission)

Classified by \_\_\_\_\_\_\_\_\_

Causes human disease